

Claims

What is Claimed is:

1. A high-pressure tank comprising:

5 a metallic tank body in which a cylindrical gas discharge section is protruded integrally from one end of a cylindrical middle section through a dome section; and

 a cylindrical metallic reinforcing collar engaged integrally on the exterior of the tank body between the cylindrical gas discharge section and the dome section by fitting of the reinforcing collar onto the cylindrical gas discharge section of the tank body.

10

2. The high-pressure tank of Claim 1, wherein

 the reinforcing collar is formed of a cylindrical part fitted onto the cylindrical gas discharge section of the tank body, and an extension extended radially outwardly from one end of the cylindrical part, the back of the extension being formed with an annular boss,

15 and

 the exterior of the tank body is formed with an annular fitting recess in the vicinity of the boundary between the dome section and the cylindrical gas discharge section so that the annular boss is fitted into the annular fitting recess with the reinforcing collar engaged on the exterior of the tank body between the cylindrical gas discharge section and the dome section.

20

3. The high-pressure tank of Claim 1 or 2, wherein the reinforcing collar is made of a steel alloy or a titanium alloy.

25 4. The high-pressure tank of Claim 1 or 2, wherein the tank body is made of an aluminum alloy.

5. A method for fabricating a high-pressure tank, comprising the steps of:

plastically deforming a hollow cylindrical blank of metal with rotation to form a tank body in which a cylindrical gas discharge section is protruded integrally from one end of a cylindrical middle section through a dome section; and

5 then fitting a cylindrical metallic reinforcing collar onto the cylindrical gas discharge section of the tank body and engaging the reinforcing collar integrally on the exterior of the tank body between the cylindrical gas discharge section and the dome section by shrink fitting.

10 6. A method for fabricating a high-pressure tank, comprising the steps of:

plastically deforming a hollow cylindrical blank of metal with rotation to form a tank body in which a cylindrical gas discharge section is protruded integrally from one end of a cylindrical middle section through a dome section, followed by forming an annular fitting recess circumferentially in the exterior of the tank body in the vicinity of the
15 boundary between the dome section and the cylindrical gas discharge section; and

then fitting a cylindrical metallic reinforcing collar having an annular boss onto the cylindrical gas discharge section of the tank body to fit the boss in the fitting recess of the dome section and engaging the reinforcing collar integrally on the exterior of the tank body between the cylindrical gas discharge section and the dome section by shrink fitting.

20